

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ART+COM INNOVATIONPOOL GMBH,)	
)	
Plaintiff,)	
)	C.A. No. 14-217 (RGA)
v.)	
)	REDACTED –
GOOGLE INC.,)	PUBLIC VERSION
)	
Defendant.)	

**OPENING BRIEF IN SUPPORT OF DEFENDANT GOOGLE INC.'S
MOTION FOR SUMMARY JUDGMENT ON INVALIDITY
AND NON-INFRINGEMENT OF U.S. PATENT NO. RE44,550**

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I. NATURE AND STAGE OF THE PROCEEDINGS

Plaintiff ART+COM Innovationpool GmbH (“ACI”) filed this action on February 20, 2014, asserting infringement of U.S. Patent No. RE44,550 (“’550 Patent”). D.I. 1. Trial is set for May 16, 2016. D.I. 24. Defendant Google Inc. (“Google”) hereby moves for summary judgment of invalidity of Claim 1 and of non-infringement of all asserted claims.

II. SUMMARY OF ARGUMENT

Claim 1, the only independent claim, is invalid because more than a year before ACI applied for the ’550 Patent, ACI had already authored a publication, called “Sauter,” that describes the same claimed invention as the ’550 Patent. Sauter describes ACI’s “T_Vision” system that was a reduction to practice of the ’550 Patent. ACI publicly demonstrated the T_Vision system at a conference with 20,000 attendees in August 1995, more than a year before ACI filed its U.S. patent application in December 1996. At that conference, ACI also published Sauter on CD-ROMs that were distributed to attendees.

Separately, the accused products do not infringe any of the asserted claims [REDACTED] and thus do not meet Claim 1’s first method step, step 1(a), of “providing a plurality of spatially distributed data sources for storing space-related data.” Accordingly, Google’s products cannot infringe Claim 1 or any of the other asserted claims that depend from it.

III. STATEMENT OF UNDISPUTED FACTS

A. ACI’s Disclosure Of The Alleged Invention In Sauter

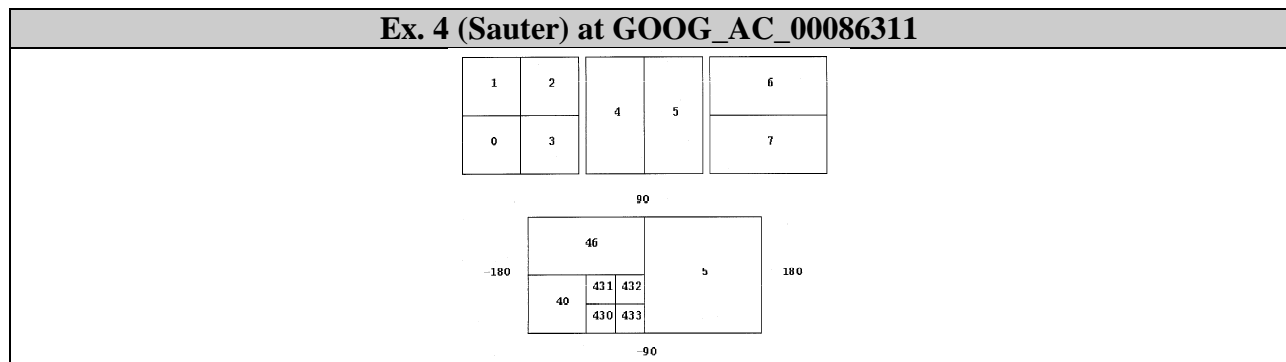
In 1993, ACI began developing a geospatial display system called TerraVision, which was later renamed T_Vision. Ex. 1 (Schmidt Depo.) at 28:12-24, 121:6-13; Ex. 2 (Mayer Depo.) at 39:14-40:1, 45:19-25. ACI and its expert, Dr. Castleman, have both stated that ACI’s

T_Vision/TerraVision system was a reduction to practice of ACI's alleged invention as claimed in the '550 Patent:

- ACI stated in its Complaint that “the '550 patent describes and claims an invention conceived by the inventors and reduced to practice in a medium called ‘Terravision.’” D.I. 9 at ¶ 9.
- Dr. Castleman stated in his expert report that “[t]he named inventors on the '550 Patent (Mayer, Schmidt, Sauter, and Gruneis), working at Art+Com, developed a geospatial data display system and reduced their invention to practice in connection with their work on a medium called ‘Terravision.’” Ex. 3 (Castleman Opening Report) at p. 3.

Sauter — the full name of which is The T_Vision Project, CD-ROM Materials from SIGGRAPH 95, Los Angeles, CA, USA (Aug. 6-11, 1995) — is a publication that describes ACI's T_Vision system. Ex. 4 (Sauter) at GOOG_AC00086306. Sauter describes T_Vision as “provid[ing] a virtual globe as a multimedia interface to visualize any kind of data related to a geographic region.” *Id.* Sauter explains that because it is “impossible for a single location to store and maintain the huge amount of high-resolution data necessary for such a visualization application,” it proposes using “a worldwide distributed database with unlimited geometry and textures in realtime” to provide additional storage capacity for high-resolution data of different geographic locations. *Id.* at GOOG_AC_00086307, -309.

Sauter explains that images stored in the database are divided into smaller sections, which Sauter calls “sectors” or “patches,” with higher levels of detail as depicted in the figure below:



Id. at GOOG_AC_00086311. Sauter explains that in this figure, each section has a “Global Area Identifier” (GAI) that “can be seen as a kind of telephone number for reaching a particular sector of the planet. The number of digits corresponds to the level of detail; the higher the number, the finer the resolution.” *Id.* Using the GAIs, the user’s device “makes a simple query” for higher-resolution data for specific sections, which are then “loaded . . . in the main memory.” *Id.* at GOOG_AC_00086312.

On August 6-11, 1995, ACI demonstrated the T_Vision system at the SIGGRAPH conference in Los Angeles. Ex. 2 (Mayer Depo.) at 175:6-21, 181:6-182:7; Ex. 5 (Rous Depo.) at 29:5-11. SIGGRAPH is an annual conference on computer graphics held by the Association for Computing Machinery (“ACM”), a non-profit society for computer scientists. Ex. 5 (Rous Depo.) at 16:21-18:9. Attendance at the 1995 SIGGRAPH conference (“SIGGRAPH 95”) was open to any member of the public who registered before or during the conference. *Id.* at 18:18-19:5. An estimated 20,000 individuals attended SIGGRAPH 95. *Id.* at 20:9-18; Ex. 6 (Lau Depo.) at 104:15-19; Ex. 2 (Mayer Depo.) at 182:23-183:11. At SIGGRAPH 95, CD-ROMs with presentation materials were distributed to attendees upon arrival and were also available to the public for order after the conference. Ex. 5 (Rous Depo.) at 30:14-21, 31:22-33:10, 36:11-23, 37:19-24. The CD-ROMs were not subject to any restrictions on distribution. *Id.* at 37:6-18.

Several sources confirm that the SIGGRAPH 95 CD-ROMs included Sauter:

- ACM, which hosts SIGGRAPH conferences, produced a copy of the SIGGRAPH 95 CD-ROMs that included Sauter. Ex. 7 (CD-ROM covers of ACM production); Ex. 8 (copy of Sauter printed from ACM-produced CD-ROMs) at ACM-SIGGRAPH_00001174-1221.
- ACM’s corporate witness confirmed at his deposition that the ACM-produced CD-ROMs included a copy of Sauter. Ex. 5 (Rous Depo.) at 33:11-35:9.
- An author of another prior art reference, Stephen Lau, testified that he received the SIGGRAPH 95 CD-ROMs when he attended SIGGRAPH 95. Ex. 6 (Lau Depo.) at 176:19-177:15.

- In another litigation, Heather Mewes, an attorney, filed a declaration confirming that her law firm had ordered a copy of the SIGGRAPH 95 CD-ROM from ACM that included files constituting the Sauter publication. Ex. 9 (Mewes Decl.) at ¶¶ 3-4.
- During proceedings before the PTO, ACI and named inventor Pavel Mayer identified Sauter as part of a CD-ROM distributed at SIGGRAPH 95. Ex. 10 (6/6/2013 Information Disclosure Statement) at ACI_00000706 (identifying Sauter as item number 23); Ex. 11 (Mayer Decl.) at ACI_00000813 (declaration from Mayer stating that he attended SIGGRAPH 95 and “reviewed the CD-ROM materials from SIGGRAPH 95 entitled ‘The T_Vision Project’”).

B. ACI’s Patent On The Alleged Invention It Disclosed In Sauter

On December 22, 1995, four months after SIGGRAPH 95, ACI filed a German patent application on the T_Vision system. ACI did not file its corresponding U.S. patent application on T_Vision until a year later, on December 17, 1996, which issued U.S. Patent No. 6,100,897 (“’897 Patent”). The ’550 Patent asserted in this case is a reissue of the ’897 Patent and claims priority to its U.S. filing date in December 1996.

Because the ’550 Patent and Sauter describe the same purported invention, they contain many of the same disclosures. Like Sauter, the ’550 Patent describes how it was impossible at the time to store all the data needed to visualize different geographic locations using a single source. As the patent explains, the chief problem in purported prior art Geographic Information Systems (“GIS”) was that they stored image data using a single memory (e.g., a CD-ROM) or database that had a fixed and limited capacity. ’550 Patent at 1:30-41, 1:52-61. Because of these technical limitations, according to the patent, prior art systems could not store the “large quantities of data to be processed” and, as a result, “the generation of an image . . . is limited to the representation of restricted information.” *Id.* at 1:62-65. For example, prior art systems “do not have the capacity for representing various views of the area.” *Id.* at 1:37-41. Similarly, the resolution of images was “limited to the resolution of the data sets stored in a memory unit,” and

hence “none of the present systems is capable of representing different space information as desired with any resolution.” *Id.* at 1:44-46, 1:55-61.

To resolve these perceived deficiencies, the '550 Patent proposes the same solution as Sauter, namely that “data [be] called up, stored and/or generated in spatially distributed data sources.” *Id.* at 2:18-20. The patent explains that using multiple networked “distributed data sources” results in unlimited storage capacity:

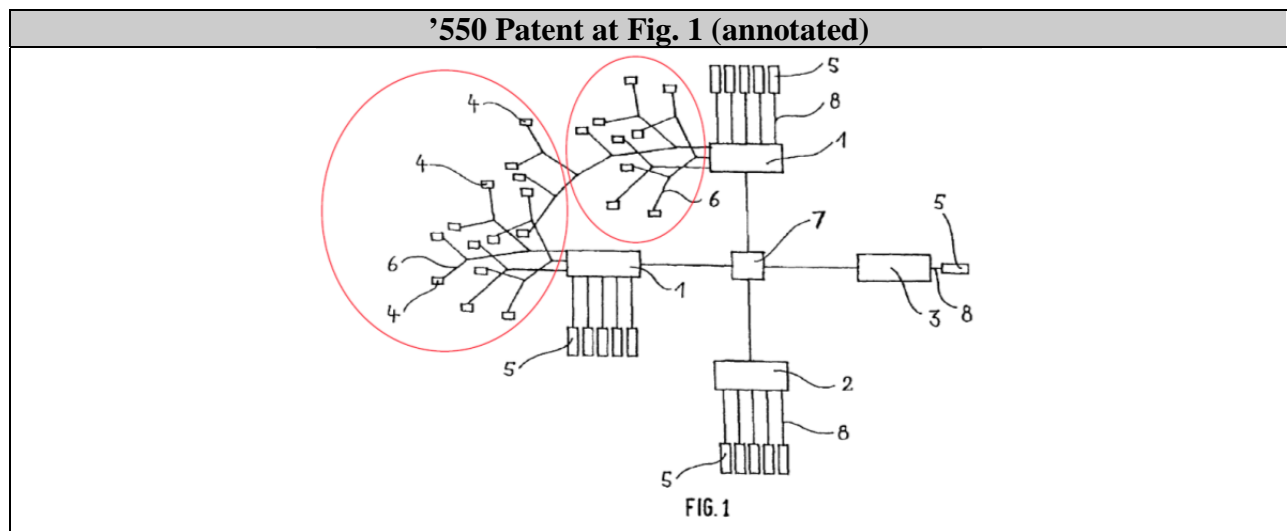
In comparison to previous systems, the method according to the invention has considerable advantages. By virtue of the fact that the data are called up, generated and/or stored in a spatially distributed manner, the magnitude of the available database is not limited by the size of the central data memory. In principle the amount of available data in the method according to the invention is therefore not limited, and can be extended at will.

Id. at 2:52-59. The use of “distributed data sources” is recited in step (a) in Claim 1:

“(a) providing a plurality of spatially distributed data sources for storing space-related data.”

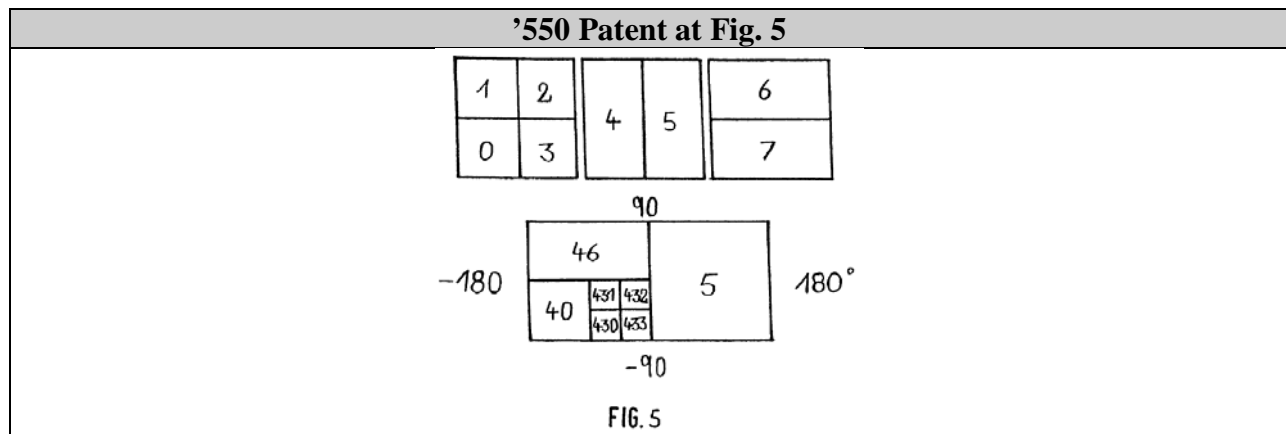
This claimed feature is also depicted in Figure 1 of the patent, below, which shows 23 “distributed data sources” (circled in red) that store space-related data. *Id.* at 6:18-23, 6:57-65.

In operation, the distributed data sources provide image data upon request to “node computers 1, 2, 3,” which then display the retrieved data on display units 5. *Id.* at 6:18-35.



As a further purported improvement over the prior art, the patent locates the distributed data sources “in the vicinity of the areas on the earth whose data they contain.” *Id.* at 6:59-61. “In this way the data are detected, stored and serviced at the point where a knowledge of the properties to be represented by the data, such as, for example, topography, political or social information, etc. is most precise.” *Id.* at 6:61-65.

As in Sauter, the '550 Patent also describes “a progressive sub-division of an area into respectively four sections.” *Id.* at 7:57-58. The patent uses a figure, shown below, that is nearly identical to that used in Sauter to depict the subdivision of an image into sections:



The patent explains that higher resolution data for each of these sections can be iteratively retrieved from the distributed data sources. *Id.* at 2:18-43.

C. The Accused Google Earth Products

Google released Google Earth in 2005, a decade after SIGGRAPH 95. D.I. at ¶¶ 14-15. ACI alleges infringement of Claims 1, 3, 14, 28, 29, 35, 43, 46, 51, 53, 58, and 61 by Google products incorporating certain implementations of Google Earth, which ACI classifies into three groups:

1. Group I products using Google Earth for Android Version 8. Ex. 3 (Castleman Opening Report) at p. 10.

2. Group II products using desktop and mobile versions of Google Earth Version 7 and earlier, which includes versions of Google Earth Free, Enterprise, and Pro, as well as certain Audi navigation systems. *Id.*
3. Group III products using Google Maps incorporating Earth functionality in desktop web browsers. *Id.*

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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1

[REDACTED]

IV. LEGAL STANDARD

“To show that a patent claim is invalid as anticipated, the accused infringer must show by clear and convincing evidence that a single prior art reference discloses each and every element of a claimed invention.” *Silicon Graphics, Inc. v. ATI Tech., Inc.*, 607 F.3d 784, 796 (Fed. Cir. 2010). “While anticipation is a question of fact, it may be decided on summary judgment if the record reveals no genuine dispute of material fact.” *Encyclopaedia Britannica, Inc. v. Alpine Elecs. of Am., Inc.*, 609 F.3d 1345, 1349 (Fed. Cir. 2010).

“To show infringement of a patent, a patentee must supply sufficient evidence to prove that the accused product or process contains, either literally or under the doctrine of equivalents, every limitation of the properly construed claim.” *Seal-Flex, Inc. v. Athletic Track & Court Constr.*, 172 F.3d 836, 842 (Fed. Cir. 1999). If an accused product does not infringe an independent claim, it also does not infringe any claim depending therefrom. *Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed. Cir. 1989).

V. INVALIDITY: SAUTER ANTICIPATES CLAIM 1

More than a year before ACI filed the U.S. application for its patent on December 17, 1996, ACI had already published Sauter, which disclosed every element of Claim 1.

A. Sauter Is A Printed Publication Under § 102(b)

Under § 102(b), “a person shall be entitled to a patent unless . . . the invention was patented or described in a printed publication . . . more than one year prior to the date of the application for patent in the United States.” The Federal Circuit and this District have held that a “printed publication” under § 102(b) includes materials shown or distributed at a conference. In *Mass. Inst. of Tech. v. AB Fortia*, the Federal Circuit found that a paper was a “printed

publication” when presented orally at a conference attended by “50 to 500” attendees and distributed without restriction to six persons. 774 F.2d 1104, 1108-09 (Fed. Cir. 1985). The Federal Circuit in *In re Klopfenstein* found that a 14-slide presentation was a “printed publication” because it was displayed publicly for three days at two conferences. 380 F.3d 1345, 1350-52 (Fed. Cir. 2004). This District in *Friction Div. Prods., Inc. v. E.I. DuPont de Nemours & Co.* found that a paper was a “printed publication” when it was displayed and available for order at a conference. 658 F. Supp. 998, 1008 (D. Del. 1987). And in *ArcelorMittal France v. AK Steel Corp.*, this District found an article distributed to conference attendees in book form was a “printed publication.” 811 F. Supp. 2d 960, 969 (D. Del. 2011), *rev’d in part on other grounds*, 700 F.3d 1314 (Fed. Cir. 2012).

Here, and as described above in Section III.A, five sources all confirm that Sauter was published on a CD-ROM distributed at the SIGGRAPH 95 conference on August 6-11, 1995.² The CD-ROM was distributed without restriction to conference attendees upon arrival. Ex. 5 (Rous Depo.) at 30:14-21, 31:22-32:13, 36:11-23, 37:6-18. Any member of the public could attend SIGGRAPH 95 and the CD-ROM was also available to the public for order after the conference ended. *Id.* at 18:18-19:5, 32:14-33:10, 37:19-24. Moreover, as compared to the conferences in the above-cited cases, SIGGRAPH 95 had a broader audience. For example, compared to the “50 to 500” attendees that the Federal Circuit found sufficient in *Mass. Institute*, SIGGRAPH 95 had about 20,000 attendees. *Id.* at 20:9-18; Ex. 6 (Lau Depo.) at 104:15-19; Ex. 2 (Mayer Depo.) at 182:23-183:11.

² On September 2, 2015, the PTO denied an IPR petition based on Sauter, finding insufficient evidence that Sauter was a “printed publication” by August 6-11, 1995, during SIGGRAPH 95. The PTO reached this result because the PTO was not presented with most of the five sources of evidence in this motion, including ACM’s production of the SIGGRAPH 95 CD, the testimony of ACM’s corporate witness, the testimony of Stephen Lau, and the Mewes Declaration.

Sauter was thus a “printed publication” no later than August 11, 1995, the last day of SIGGRAPH 95. This date is more than one year before the ’550 Patent’s earliest U.S. filing date of December 17, 1996. Although ACI had previously filed a patent application in Germany in December 1995, a “printed publication” under § 102(b) is one that predates “the date of the application for patent in the *United States*” by one year. Sauter is therefore prior art to the ’550 Patent under § 102(b).

B. Sauter Discloses All Steps Of Method Claim 1

Sauter and the ’550 Patent describe the same purported invention. *E.g.*, D.I. 9 at ¶ 9; Ex. 3 (Castleman Opening Report) at p. 3. It is thus not surprising that Sauter discloses all steps (a) through (g) of Claim 1. ACI’s expert, Dr. Castleman, disputes whether Sauter discloses steps (a) and (f) in Claim 1. *See* Ex. 16 (Castleman Rebuttal Report) at ¶¶ 92-100.

1. Preamble: “A method of providing a pictorial representation of space-related data of a selectable object, the representation corresponding to a view of the object by an observer with a selectable location and a selectable direction of view.”

The preamble recites presenting images of geographic locations from selectable viewpoints and locations. To the extent ACI argues that the preamble is limiting, Sauter discloses the preamble because it describes “an earth visualization project . . . [that] provides a virtual globe as a multimedia interface to visualize any kind of data related to a geographic region,” including “surface data (satellite imagery and aerial photographs), elevation data, transparent clouds, CAD-Models of buildings and [i]nformation billboards displaying names and current temperatures of selected cities.” Ex. 4 (Sauter) at GOOG_AC_00086306, -309; Ex. 17 (Goodchild First Suppl. Report) at ¶ 125; Ex. 18 at Supp. Ex. 6-1 to 6-4.

2. Step 1(a): “providing a plurality of spatially distributed data sources for storing space-related data.”

In step 1(a), the Court construed “*space-related data*” as “data related to a geographical location,” and “*plurality of spatially distributed data sources*” as “a plurality of geographically separate data sources.” D.I. 148 at 12, 13. Sauter discloses step 1(a) because it describes “visualiz[ing]” a “virtual globe” using “a worldwide distributed database with unlimited geometry and textures in realtime.” Ex. 4 (Sauter) at GOOG_AC_00086306, -309. Sauter further describes that the user “accesses a multi-layered database of practically unlimited size” and that “[a]ll data[] comes from a distributed database.” *Id.* at GOOG_AC_00086309; Ex. 17 (Goodchild First Suppl. Report) at ¶ 126; Ex. 18 at Supp. Ex. 6-4 to 6-9. Sauter explains that the distributed “T_Vision database . . . has been developed to handle this huge amount of data” needed to represent “high resolution spatial data.” Ex. 4 (Sauter) at GOOG_AC_00086306-307.

Dr. Castleman disputes whether the T_Vision system actually used multiple distributed data sources as of August 1995, when Sauter was published. Ex. 16 (Castleman Rebuttal Report) at ¶¶ 92-96. But Dr. Castleman’s dispute is with the T_Vision system as purportedly made and used in practice — not with the Sauter publication, which is at issue here. The Federal Circuit has held that “[a]nticipation does not require actual performance of suggestions in a disclosure. Rather, anticipation only requires that those suggestions be enabling to one of skill.” *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1379 (Fed. Cir. 2001) (affirming summary judgment of invalidity based on anticipation by publication). Applying this principle, the Federal Circuit in *In re Antor Media Corp.* found that a prior art publication was anticipatory, even though it described certain claimed features using “forward-looking” or “precatory” language. 689 F.3d 1282, 1289-90 (Fed. Cir. 2012). The Federal Circuit reasoned that its

finding was “consistent with our precedent holding that the invention in a prior art publication need not have actually been made or performed to satisfy enablement.” *Id.* at 1290-91.

Thus, whether ACI actually implemented “spatially distributed data sources” in the T_Vision system is irrelevant because the Sauter publication provides an enabling disclosure of this feature. Sauter repeatedly describes using worldwide “distributed databases” to store the image data needed to display geographic locations at varying resolutions. Indeed, Sauter’s disclosure is as enabling as the ’550 Patent, which similarly describes that “storage of the data, servicing and updating of the database can be effected in a distributed manner” and “[t]he required data were called up from spatially distributed databases.” ’550 Patent at 2:62-64, 9:42-43. Further, the use of “distributed data sources” was known to one of ordinary skill by 1995. For example, ACI’s expert Dr. Castleman admitted that storing data across a worldwide network of multiple databases for GIS products was well known by 1995. Ex. 14 (Castleman Depo.) at 158:18-21, 171:9-172:5, 177:8-179:21.

3. **Steps (b), (c), (d), and (e): “(b) *determining a field of view including an area of the object to be represented through a selection of a distance of the observer to the object and an angle of view of the observer to the object*; (c) *requesting data for the field of view from at least one of the plurality of spatially distributed data sources*; (d) *centrally storing the data for the field of view*; (e) *representing the data for the field of view in a pictorial representation having one or more sections*.”**

Sauter discloses steps (b) and (c) — determining a field of view and requesting data for that field of view — because it describes giving the “user” “full control over which information to view, at what time and at which location.” Ex. 4 (Sauter) at GOOG_AC_00086306. Based on the user’s selected view, the user’s device “knows all viewing and flight parameters like position and direction,” “calculates the currently needed data and predicts the needed data,” and then “requests the data for a special location with an appropriate resolution.” *Id.* at GOOG_AC_00086309; Ex. 17 (Goodchild First Suppl. Report) at ¶¶ 127-28; Ex. 18 at Supp. Ex.

6-9 to 6-15. Sauter also describes using “Global Area Identifiers” (GAIs) that “can be seen as a kind of telephone number for reaching a particular sector of the planet.” Ex. 4 (Sauter) at GOOG_AC_00086311. The user’s device “computes the GAIs according to the field of view and makes a simple query” for data for particular images. *Id.* at GOOG_AC_00086312.

Sauter discloses steps (d) and (e) — displaying and storing image data — because it describes “load[ing]” image data “in the main memory” and that “[t]hese remotely accessed data are integrated unobtrusively into the user’s system on the fly.” Ex. 4 (Sauter) at GOOG_AC_00086307, -312; Ex. 17 (Goodchild First Suppl. Report) at ¶ 129. Sauter also discloses that images have one or more sections, called “patch[es]” or “sectors,” that are each identified using the GAIs. Ex. 4 (Sauter) at GOOG_AC_00086311; Ex. 17 (Goodchild First Suppl. Report) at ¶ 130.

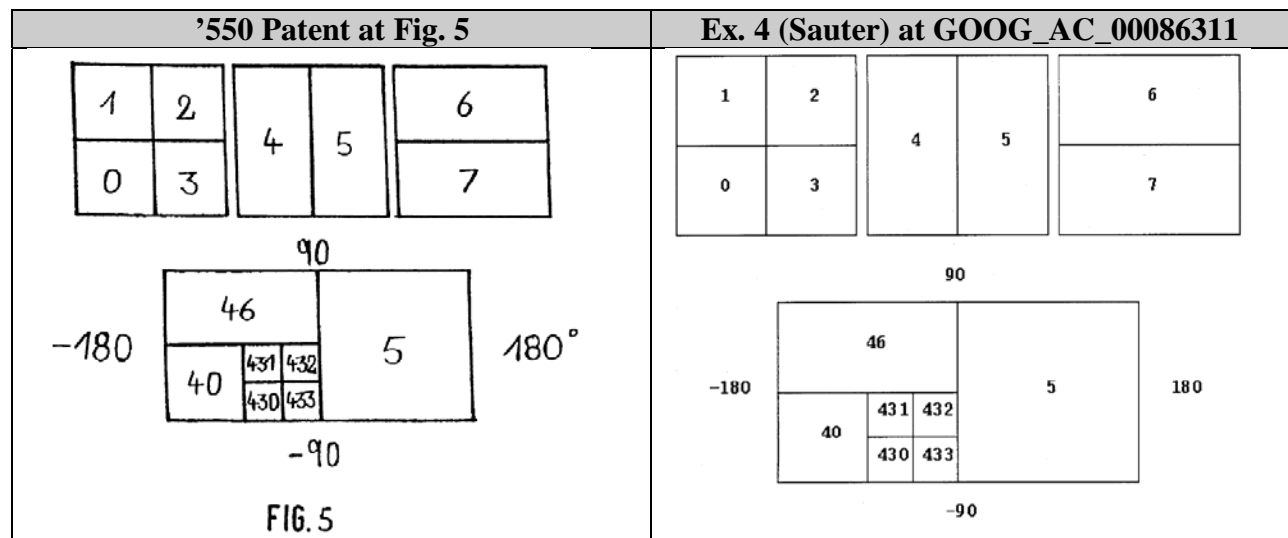
4. **Steps (f) and (g):** *“(f) using a computer, dividing each of the one or more sections having image resolutions below a desired image resolution into a plurality of smaller sections, requesting higher resolution space-related data for each of the smaller sections from at least one of the plurality of spatially distributed data sources, centrally storing the higher resolution space-related data, and representing the data for the field of view in the pictorial representation; and (g) repeating step (f), dividing the sections into smaller sections, until every section has the desired image resolution or no higher image resolution data is available.”*

Steps (f) and (g) recite iteratively dividing image data into smaller sections, and then repeating the “requesting,” “storing,” and “representing” steps for these smaller sections until the desired resolution is achieved or no higher resolution data is available.

Sauter discloses steps (f) and (g) because it describes using “different levels of detail” to “allow[] the continuous zooming from a global view down to recognizable features of only a few centimeters in size.” Ex. 4 (Sauter) at GOOG_AC_00086306. Different levels of detail are achieved using a “multi-layered database” “organized as a quadtree, conta[in]ing higher levels of

detail as you descend down the tree.” *Id.* at GOOG_AC_00086309; Ex. 17 (Goodchild First Suppl. Report) at ¶¶ 131-35; Ex. 18 at Supp. Ex. 6-22 to 6-30. Sauter’s disclosure of the quadtree mirrors that of the ’550 Patent, which states “the quadrant tree [*i.e.*, quadtree] is suitable as a sub-division method for the field of view” and that “views of the earth [are] generated by a method using a quadrant tree.” ’550 Patent at 3:66-4:1, 9:41-43.

In fact, Sauter depicts the division of images into sections and identifiers for those sections with a figure that is virtually identical to Figure 5 of the ’550 Patent:



Sauter explains that in these figures, each “patch” or “sector” section of the image is identified using a “GAI” identifier. Ex. 4 (Sauter) at GOOG_AC_00086311. “The number of digits [in the GAI] corresponds to the level of detail; the higher the number, the finer the resolution.” *Id.* After computing the “GAIs” for the sections, the user’s device “makes a simple query” to request higher resolution data for identified sections. *Id.* at GOOG_AC_00086312. Sauter explains that the user “requests the data for a special location with an appropriate resolution.” *Id.* at GOOG_AC_00086309. Again, Sauter’s disclosure mirrors the ’550 Patent, which similarly describes “divid[ing] the field of view . . . into four sections,” “the formation of an address of a

section,” and “[i]f the required image resolution is not achieved . . . call[ing] up further data for [a] section.” ’550 Patent at 8:5-11, 8:53-55.

Dr. Castleman disputes whether Sauter discloses “dividing” the image data into sections “*prior to* requesting higher resolution” data, as required by the Court’s construction. Ex. 16 (Castleman Rebuttal Report) at ¶¶ 97-100. But Sauter explains that when the user initially sees “a coarse image,” the user will then request additional image data at the “appropriate resolution.” Ex. 4 (Sauter) at GOOG_AC_00086309; Ex. 20 (Goodchild Reply Report) at ¶ 49. Sauter also discloses a “multi-layered database” “organized as a quadtree, conta[in]ing higher levels of detail as you descend down the tree.” Ex. 4 (Sauter) at GOOG_AC_00086309.

Sauter thus discloses the preamble and all method steps (a) through (g) of Claim 1.³

VI. NON-INFRINGEMENT: THE ACCUSED PRODUCTS DO NOT INFRINGE ANY CLAIMS BECAUSE THEY DO NOT PERFORM STEP 1(a) OF CLAIM 1

Step 1(a) in Claim 1 recites “*providing a plurality of spatially distributed data sources for storing space-related data.*” During claim construction, the parties disputed whether the “plurality of spatially distributed data sources” in step 1(a) had to be “networked.” D.I. 148 at 13-15. ACI opposed any “networked” requirement and proposed that the term be given its plain meaning, while Google proposed a construction of “two or more separate networked data sources.” *Id.* The Court disagreed with both Google’s “networked” requirement and ACI’s plain meaning proposal. *Id.* The Court construed the term to mean “a plurality of geographically separate data sources.” *Id.*

³ ACI asserts infringement of 12 claims. Claim 1 is invalid under 35 U.S.C. § 102(b) for the reasons presented in this brief. The other 11 asserted claims are similarly invalid under 35 U.S.C. §§ 102-103 for the reasons Google will present in supplemental briefing or at trial.

In claim construction, however, the parties did not present to the Court and the Court did not address an issue regarding step 1(a) that became critical in discovery: whether step 1(a) requires *distributing* the stored data across the data sources, such that each source stores different data, or whether step 1(a) encompasses *replicating* the stored data across the data sources, such that each and every source stores a copy of the same data. Resolving this open claim construction issue is necessary to resolving the non-infringement position presented in this motion because there is no dispute that the image data in the accused products is [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Correctly construed, step 1(a) does not encompass [REDACTED]

[REDACTED] but instead requires that the data be distributed among data sources. Indeed, the patent emphasizes that the main problem with prior art systems was that they used a single data source (e.g., a CD-ROM) with a fixed limited memory capacity that was too small to store the amount of data needed to represent images at different resolutions. '550 Patent at 1:30-46, 1:52-65. By contrast, “according to the invention the space-related data are called up, stored and/or generated in spatially distributed data sources.” *Id.* at 2:18-20. The patent explains that “[b]y virtue of the fact that the data are called up, generated and/or stored in a spatially distributed manner, the magnitude of the available database is not limited by the size of the central data memory.” *Id.* at 2:53-57. The patent also describes locating the distributed data sources “in the vicinity of the areas on the earth whose data they contain” so that “the data are detected, stored and serviced at

the point where a knowledge of the properties to be represented by the data, such as, for example, topography, political or social information, etc. is most precise.” *Id.* at 6:59-65. The patent’s Figure 1 also depicts an embodiment where the entire data set is divided and distributed across 23 data sources, so each data source stores approximately 1/23 of the entire data set.

[REDACTED]

[REDACTED]

Not only is the patent clear about its model of distribution, [REDACTED] but ACI, this Court, and the inventors have all identified distributing the data across many geographically separate data sources as an essential requirement of the ’550 Patent:

- At the claim construction hearing, ACI’s counsel emphasized that because data is “distributed all around the world,” the “key to this invention” is to use “spatially distributed data sources” to store different data so “you wouldn’t have to load it all in one place.” Ex. 19 (Claim Construction Hrg. Tr.) at 114:17-115:14.
- In construing “plurality of spatially distributed data sources” in step 1(a) to mean “a plurality of geographically separate data sources,” this Court remarked that: “[o]ne of the advantages of the invention is that information is received from data sources close to the point of interest, such that data is more precise Because the location of interest can be anywhere, the data sources must also be spread out.” D.I. 148 at 14.
- Inventor Axel Schmidt testified that “[r]ight from the beginning, we had this idea . . . to also retrieve the data from geographically distributed data sources.” Ex. 1 (Schmidt Depo.) at 202:18-21.

Moreover, by [REDACTED]

— rather than dividing and distributing data such that each source needs to only store a fraction of all data — Google’s accused products contravene the primary purpose of patent, namely overcoming limited memory capacity by using more data sources. *See Aero Indus., Inc. v. Quick Draw Tarpaulin Sys., Inc.*, 2009 WL 838684, at *20-21 (S.D. Ind. Mar. 27, 2009) (granting summary judgment of non-infringement because accused products’ features taught away from the asserted patent). The ’550 Patent’s chief concern of limited memory capacity is irrelevant to

Google Earth. Whereas memory capacities were limited at the time of the '550 Patent in 1995, memory capacities grew by orders of magnitude when Google Earth was released a decade later in 2005, and are still many more orders greater today in 2016. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

In short, not only does the '550 Patent only disclose and claim distributing the stored data across the data sources, the patent's purpose and the state of the technology at the time was inimical to [REDACTED]. Accordingly, Google's accused products do not "provid[e] plurality of spatially distributed data sources for storing space-related data," as required in step 1(a) and therefore do not infringe independent Claim 1. Because the remaining claims all depend from Claim 1, the accused products also do not infringe those claims. *See Wahpeton*, 870 F.2d at 1553.

VII. CONCLUSION

Claim 1 is invalid in view of ACI's own publication, Sauter, which describes the same purported invention and which was published more than a year before the '550 Patent's earliest U.S. filing date. And none of the asserted claims are infringed by Google's accused products because [REDACTED] which is the opposite of Claim 1's requirement of distributing that data across a plurality of data sources. Google requests that the Court grant summary judgment of invalidity of Claim 1 and non-infringement of all of the asserted claims.

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